

DETAILED ACTION

1. Claims 29-52 and 54-56 are pending and claims 1-28 and 53 are cancelled.

Remark

2. Examiner contacted Mr Steven J. Laureanti indicating allowable subject matter for claims 31, 34, 39, 42, 47 and 50 and requested them to be incorporated to their corresponding independent form. Applicant refused the proposal and requested an office action.

Response to Arguments

3. With respect to the validity of the Reisman prior art, Examiner agree with Applicant that Reisman provisional application 60/278033 contains all the data used to reject the claim. The following is mapping of the specification of the patent reference and the provisional specification:

Column 2, lines 3-8 → page 15-20

Column 4, lines 19-28 → page 8, lines 2-8 and page 49, lines 5-16

Column 6, lines 10-23 → page 9, lines 19-23 and page 10, lines 1-4

Column 25, lines 48-65 → page 49, lines 5-16

The rest of Applicant arguments were fully considered and are moot in view of the new ground of rejection.

Terminal Disclaimer

4. The terminal disclaimer filed on 06/24/2010 has been reviewed and is accepted. The terminal disclaimer has been recorded, Therefore, the Double Patenting rejection is withdrawn.

Specification Objection

5. The specification is objected to because it lacks antecedent basis for claimed computer readable medium.

Allowable Subject Matter

6. Claims 31 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 39 and 42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 47 and 50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 54 will allowable once the below mentioned 35 USC 101 rejection is resolved.

Claim 55 allowable because the prior arts do not disclose the claimed limitation combination.

Claim 56 will allowable once the below mentioned 35 USC 101 rejection is resolved.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 29-36 and 45-52, 54 and 56 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 29-36 and 54 refer to a “system”. As cited in Fig. 6 and on page 20, lines 9-25 of this instant specification, has provided evidence that the claimed system is a software per se, wherein a series of modules are to be executed and wherein the storage medium is a database software. The claims do not define structural and functional descriptive material used in interrelationship between the computer software and the hardware like a memory or processor.

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” Both types of “descriptive material” are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994).

Claims 45-52 and 56 refer to a “computer-readable medium embodied with software”. The instant specification lacks support for the computer readable medium. One ordinary skill in the art can conclude that the claimed computer readable medium is a software per se because it does not explicitly state that the claimed computer readable medium is Non transitory or storage having the software embedded within but “computer-readable medium embodied with software” which make the computer readable medium to be interpreted as software also wherein a series of modules are to be executed. The claims do not define structural and functional descriptive material used in interrelationship between the computer software and the hardware like a memory or processor.

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” Both types of “descriptive material” are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and

will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 29-30, 32-33 and 35-36 and are rejected under 35 U.S.C. 103(a) as being unpatentable over Livesay, Jeffery et al (hereinafter Livesay) US Publication No 20080126265 and Reisman, Richard (hereinafter Reisman) US Patent No. 7406436 in view of Elad, Joseph B. et al (hereinafter Elad) US Patent 7512558.

As per claim 29, Livesay discloses:

An electronic commerce system, comprising:

a global content directory server (Abstract: lines 1-2 and FIG. 4, components 401 and 406) **coupled with one or more seller databases over a network, the global content directory server providing a plurality of buyer computers access to the one or more seller databases,** (Paragraphs [0088] and [0129], indicate global content directory (FIG. 4, components 401 and 406) providing the buyer access to the seller database). **the global content directory server comprising:** **a storage medium stored therein a schema translation tool comprising:**

a storage medium stored therein a mapping module configured to:

receive a source schema data and a target schema data,

(paragraphs [0079] and [0100], indicate the plurality of schema (XML data files)).

Livesay does not go into detail regarding the hierarchy of product within the schemas, however in an analogous art of data mapping/translating, Reisman teaches:

the source schema data and target schema data each comprising a taxonomy comprising a hierarchy of classes into which products are categorized wherein the target schema comprises a different taxonomy then the taxonomy of the source schema (Column 25, lines 48-65, wherein the XML files contain different item structure taxonomy)(page 49, lines 5-16 in the provisional application 60/278033)

at least the source schema further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes (Column 25, lines 48-65, wherein the item attributes variation is the ontology criteria))

and associate one or more source classes of the source schema with one or more target classes of the target schema (Column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)))

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Livesay and Reisman by incorporating the teaching of Reisman into the system of Livesay. One having ordinary skill in the art would have found it motivated to use the product categorization of Reisman into the system of Livesay for the purpose of leveraging XML schema when defining commerce or trade product in order to facilitate data exchange and parsing between partners.

Livesay and Reisman do not go into detail regarding storing product ontology, however in an analogous art of data mapping/translating, Elad teaches:

and a storage medium stored therein an ontology generation module configured to generate a product ontology for each of the target classes based on the product ontologies of the associated source classes (Fig. 17 and 22 and column 13, lines 39-46, wherein the Market Information agent uses ontology sub module providing translation of dimension (class) and determining market feature (product) of requested by the buyer and logically implied by the offering of the seller)

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Livesay and Reisman and Elad by incorporating the teaching of Elad into the system of Livesay and Reisman. One having ordinary skill in the art would have found it motivated to use the product ontology of Elad into the system of Livesay and Reisman for the purpose of capturing and storing product relationship in order to augment mapping association of the plurality of schemas.

As per claim 30, Livesay and Reiman and Elad teach:

The system of Claim 29, wherein the mapping module is further configured to:

receive input from at least one of the plurality of buyer computers indicating one or more source classes to be associated with one or more target classes (Paragraph [0155], wherein the input parameter links buyer to seller)(Livesay).

and associate the source classes with the target classes in response to the input from a user associated with at least one of the plurality of buyer computers (Paragraph [0155], wherein the input parameter links buyer to seller)(Livesay)

(Column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file))(Reiman).

As per claim 32, Livesay and Reiman and Elad teach:

The system of Claim 29, wherein the source classes are leaf classes of the source schema data (Column 6, lines 10-23, wherein the subcategory incorporates a leaf class) (Reiman)

As per claim 33, Livesay and Reiman and Elad teach:

The system of Claim 29, wherein the ontology generation module is further configured to generate a product ontology for a target class by determining the intersection of the product attributes included in the product ontologies of the associated source classes (Fig. 17 and 22 and column 13, lines 39-46, wherein the Market Information agent uses ontology sub module providing translation of dimension (class) and determining market feature (product) of requested by the buyer and logically implied by the offering of the seller and wherein matching of goods of seller and buyer is the intersection of goods)(Elad)

As per claim 35, Livesay and Reiman and Elad teach:

The system of Claim 29, wherein:

at least the source schema further comprises a seller ontology associated with one or more of the classes, each seller ontology comprising one or more attributes associated with one or more sellers of a product (Column 25, lines 48-65, wherein the item attributes variation is the ontology criteria) (Reiman).

and the ontology generation module is further configured to generate a seller ontology for each of the target classes based on the seller ontologies of the associated source classes (Paragraph [0136], wherein the determining profile link with best fit criteria (ontologies) is determining association between product parameters (attributes) between seller and buyer)(Livesay).

As per claim 36, Livesay and Reiman and Elad teach:

The system of Claim 29, wherein:

one or more pointers identifying the one or more seller databases are associated with at least one source class (Paragraphs [0088] and [0129], indicate the database product identification linking the buyer and seller)(Livesay).

the one or more seller databases including product data associated with one or more products categorized in the source class (Paragraphs [0088] and [0129], indicate the database product identification linking the buyer and seller)(Livesay).

and the mapping module is further configured to associate the one or more pointers of the source class with one or more target classes associated with the source class

(Column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file))(Reiman).

9. Claims 37-38, 40-41, 43-46, 48-49, and 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reisman, Richard (hereinafter Reisman) US Patent No. 7406436 in view of Elad, Joseph B. et al (hereinafter Elad) US Patent 7512558.

As per claim 37, Reisman discloses:

A computer-implemented method of translating schema data, comprising:

receiving, by a server, a source schema data and a target schema data, the source and target schemas each comprising a taxonomy comprising a hierarchy of classes into which products may be categorized (Column 25, lines 48-65, wherein the XML files contain item structure taxonomy))

wherein the target schema data comprises a different taxonomy than the taxonomy of the source schema data (Column 25, lines 48-65, wherein the XML files contain different item structure taxonomy),

at least the source schema further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes (Column 25, lines 48-65, wherein the item attributes variation is the ontology criteria)

associating, by the server, one or more source classes of the source schema with one or more target classes of the target schema;

(Column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)

Reisman does not go into detail regarding storing/reporting product ontology, however in an analogous art of data mapping/translating, Elad teaches:

and generating, by the server, a product ontology for each of the target classes based on the product ontologies of the associated source classes

(Fig. 17 and 22 and column 13, lines 39-46, wherein the Market Information agent uses ontology sub module providing translation of dimension (class) and determining market feature (product) of requested by the buyer and logically implied by the offering of the seller)

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Livesay and Reisman and Elad by incorporating the teaching of Elad into the system of Livesay and Reisman. One having ordinary skill in the art would have found it motivated to use the product ontology of Elad into the system of Livesay and Reisman for the purpose of capturing and storing product relationship in order to augment mapping association of the plurality of schemas.

As per claim 38, Reisman and Elad teach:

The method of Claim 37, further comprising:

receiving input from at least one of a plurality of buyer computers indicating one or more source classes to be associated with one or more target classes (Column 2, lines 3-8, Column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)(Reiman).

and associating the source classes with the target classes in response to the input from at least one of the plurality of buyer computers (Column 2, lines 3-8 and column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)(Reiman).

As per claim 40, Reisman and Elad teach:

The method of Claim 37, wherein the source classes are leaf classes of the source schema.
(Column 6, lines 10-23, wherein the subcategory incorporates a leaf class)(Reiman)

As per claim 41, Reisman and Elad teach:

The method of Claim 37, further comprising generating a product ontology for a target class by determining the intersection of the product attributes included in the product ontologies of the associated source classes (Fig. 17 and 22 and column 13, lines 39-46, wherein the Market Information agent uses ontology sub module providing translation of dimension (class) and determining market feature (product) of requested by the buyer and logically implied by the offering of the seller and wherein matching of goods of seller and buyer is the intersection of goods)(Elad)

As per claim 43, Reisman and Elad teach:

The method of Claim 37, wherein:

at least the source schema further comprises a seller ontology associated with one or more of the classes, each seller ontology comprising one or more attributes associated with one or more sellers of a product (Column 2, lines 3-8 and column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)(Reiman).

and the method further comprises generating a seller ontology for each of the target classes based on the seller ontologies of the associated source classes.

(Fig. 17 and 22 and column 13, lines 39-46, wherein the Market Information agent uses ontology sub module providing translation of dimension (class) and determining market feature (product) of requested by the buyer and logically implied by the offering of the seller)(Elad)

As per claim 44, Reisman and Elad teach:

The method of Claim 37, wherein:

one or more pointers identifying the one or more seller databases are associated with at least one source class (Column 2, lines 3-8 and column 4, lines 19-28 and column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)(Reiman).

the one or more seller databases including product data associated with one or more products categorized in the source class (Column 2, lines 3-8 and column 4, lines 19-28 and column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)(Reiman).

and the method further comprises associating the pointers of the source class with one or more target classes associated with the source class (Column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)(Reiman).

As per claim 45, Riesman discloses:

A computer-readable medium embodied with software for translating between schemas, the software when executed using one or more computers is configured to:

receive a source schema data and a target schema data, the source and target schemas each comprising a taxonomy comprising a hierarchy of classes into which products may be categorized (Column 25, lines 48-65, wherein the XML files contain item structure taxonomy).

wherein the target schema data comprises a different taxonomy than the taxonomy of the source schema data (Column 25, lines 48-65, wherein the XML files contain different item structure taxonomy)

at least the source schema data further comprising a product ontology associated with one or more of the classes, each product ontology comprising one or more product attributes;

(Column 25, lines 48-65, wherein the item attributes variation is the ontology criteria)

associate one or more source classes of the source schema data with one or more target classes of the target schema data;

(Column 25, lines 48-65, wherein the XML files contain different item structure taxonomy)

Reisman does not go into detail regarding storing/reporting product ontology, however in an analogous art of data mapping/translating, Elad teaches:

and generate a product ontology for each of the target classes based on the product ontologies of the associated source classes (Fig. 17 and 22 and column 13, lines 39-46, wherein the Market Information agent uses ontology sub module providing translation of dimension (class) and determining market feature (product) of requested by the buyer and logically implied by the offering of the seller)

Therefore, it would have been obvious to a person in the ordinary skill in the art at the time of the invention to combine Livesay and Reisman and Elad by incorporating the teaching of Elad into the system of Livesay and Reisman. One having ordinary skill in the art would have found it motivated to use the product ontology of Elad into the system of Livesay and Reisman for the purpose of capturing and storing product relationship in order to augment mapping association of the plurality of schemas.

As per claim 46, Reisman and Elad teach:

The computer-readable medium of Claim 45, wherein the software is further configured to: receive input from at least one of a plurality of buyer computers indicating one or more source classes to be associated with one or more target classes;

(Column 2, lines 3-8, Column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)(Reiman).

and associate the source classes with the target classes in response to the input from at least one of the plurality of buyer computers (Column 2, lines 3-8, Column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)(Reiman).

As per claim 48, Reisman and Elad teach:

The computer-readable medium of Claim 45, wherein the source classes are leaf classes of the source schema. (Column 6, lines 10-23, wherein the subcategory incorporates a leaf class))(Reiman)

As per claim 49, Reisman and Elad teach:

The computer-readable medium of Claim 45, wherein the software is further configured to generate a product ontology for a target class by determining the intersection of the product attributes included in the product ontologies of the associated source classes.

(Fig. 17 and 22 and column 13, lines 39-46, wherein the Market Information agent uses ontology sub module providing translation of dimension (class) and determining market feature (product) of requested by the buyer and logically implied by the offering of the seller and wherein matching of goods of seller and buyer is the intersection of goods)(Elad)

As per claim 51, Reisman and Elad teach:

The computer-readable medium of Claim 45, wherein:

at least the source schema further comprises a seller ontology associated with one or more of the classes, each seller ontology comprising one or more attributes associated with one or more sellers of a product (Column 2, lines 3-8 and column 25, lines 48-65, wherein the item attributes variation is the ontology criteria)(Reiman).

and the software is further configured to generate a seller ontology for each of the target classes based on the seller ontologies of the associated source classes (Column 2, lines 3-8 and column 25, lines 48-65, wherein the item attributes variation is the ontology criteria) (Reiman).

As per claim 52, Reisman and Elad teach:

The computer-readable medium of Claim 45, wherein:

one or more pointers identifying one or more seller databases are associated with at least one source class ((Column 2, lines 3-8 and column 4, lines 19-28 and column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file))(Reiman).

the seller databases including product data associated with one or more products categorized in the source class (Column 2, lines 3-8 and column 4, lines 19-28 and column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)) (Reiman).

And the software is further configured to associate the pointers of the source class with one or more target classes associated with the source class (Column 2, lines 3-8 and column 4, lines 19-28 and column 25, lines 48-65, wherein the item conversion / matching is the association of items (classes) within the XML file)(Reiman).

Conclusion

For the prior art made of record and not relied upon is considered pertinent to applicant's disclosure, please refer to the Notice of Reference form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarek Chbouki whose telephone number is 571-2703154. The examiner can normally be reached on Mon-Fri 7:30 am to 5:00 pm EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Neveen Abel-Jalil can be reached at 571-2724074. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TAREK CHBOUKI/

Examiner, Art Unit 2165

08/27/2010